ECRONICON OPEN ACCESS

EC PSYCHOLOGY AND PSYCHIATRY
Mini Review

Childhood Schizophrenia

Carnell Colebrook-Claude*

PhD Resident in Clinical, Health, Forensic and Neuropsychology, Fielding Graduate University, Santa Barbara, CA, USA

***Corresponding Author**: M\Carnell Colebrook-Claude, PhD Resident in Clinical, Health, Forensic and Neuropsychology, Fielding Graduate University, Santa Barbara, CA, USA.

Received: November 23, 2018; **Published:** January 17, 2019

Abstract

Childhood schizophrenia is fundamentally similar to schizophrenia in an adult. However, it happens early in life and has a profound influence on children's development and behavior. Childhood schizophrenia is also called very early-onset schizophrenia and is known to be a severe and uncommon psychological disorder. This paper is a concise theoretical exploration of this new diagnostic illness and an attempt to grasp its constructs. What makes this different from other childhood disorders?

Keywords: *Childhood Schizophrenia; Early-Onset Schizophrenia; Hallucinations; Brain Disruption; Behavioral Problems; Genetics*

According to Joan [1], childhood schizophrenia was realized as a separate diagnostic criterion in the 1980's. Prior to that clinical studies [2] of early childhood autism validated the probability that positive indicators could occur, and that early childhood autism could progress into schizophrenia type disorders. For years, Freedman was concerned about clarifying the dynamics and development of the distinct symptomatology relating to schizophrenic children [2]. Therefore, he determined that it would be significant to identify and separate the characteristic typical of childhood schizophrenia from autism and classify which of these schizophrenic symptomologies match the aspects of schizophrenia seen in adults. In a continuation of the quest, and in hopes of finding the components that influence the development of these psychological disorders, Freedman cautiously conducted a study. The longitudinal study consisted of observing the development of the schizophrenic condition within a group of eight children [2]. The study carries out detailed observations of children starting from birth to three years of age, and the children mothers kept complete diaries [2]. The results show that the schizophrenic child display marked deviation from the norm in behaviors and development across the entire three years. In addition to similar symptomologies to that of schizophrenia found in adults [2]. The study also found evidence of disturbed maturation patterns in the schizophrenic child. Overall, Freedman determined that the similarity between the two pathologies-childhood schizophrenia and adult schizophrenia, could be proposed [2].

What is childhood schizophrenia?

Joan [1] conveyed that childhood schizophrenia is an acute brain condition in which a child interpret the real world abnormally. Chronic and persistently debilitating, it is similar to schizophrenia in adults, but occurs in children early in life at age 12 or younger. Childhood schizophrenia early age of onset has a profound impact on children development and behavior. In addition to posing exceptional challenges for diagnosing, treatment, emotional and social development, and the educational needs of the child [1]. Childhood schizophrenia develops slowly in children, frequently come before developmental disturbances, such as delays in language, speech, and motor development. Joan expressed that these problems tend to be associated with more prominent brain abnormalities. The American Psychiatric [3] communicated that that even though the vital characteristics of schizophrenia are similar to that of an adult in childhood. It 's hard to diagnose since a child may experience fewer intricate hallucinations and delusions than adults.

Alaghband-Rad, Hamburger, Giedd, Frazier, Rapoport (1997) examined "the relationship between neurobiological measures of childhood-onset schizophrenia" (p. 64). The study examined "magnetic resonance imaging brain measures" (p. 66), designed for 29 premorbid, prenatal, clinical, perinatal adolescents and children. Fitting the Diagnostic and Statistical Manual of Mental Disorders standards for schizophrenia, with the onset prior to 12 years of age [4]. The study particularly assessed clinical symptoms, gender, and premorbid adjustment. As they relate to ventricular volume, cerebral volume, and complications while caring for the mother during pregnancy [4]. The results reveal that males have a higher probability to have experienced a subtle but harmful onset than female. In addition, significant negative relationship between the evaluation of adverse symptoms and overall cerebral volume was also discovered. According to Alaghband., *et al.* these neurobiological relationships affirm the continuous action of early onset schizophrenia with the later onset disorder. The discovery of the relationship between smaller cerebral capacity and adverse symptoms proposes a more standardized or more robust neurobiological foundation for very early-onset schizophrenia [4].

Possible causes

Many agrees that no single reason appears to explain all instances of schizophrenia.

Researchers and neuroscientists [4-7]. Emphasized that schizophrenia develops as a consequence of genetic inheritance and biological predisposition interacting with the kind of environmental factors that a person is exposed to. These formations of studies are also converging in their philosophies. Philosophies that proposes that the progress of brain disruption is currently identified to be the effect of genetic predisposition and stress from the environment that develop early in pregnancy or during childhood. Contributing to impalpable variations in the brain that influence the development of early onset schizophrenia [5].

Schmidt-Kastner, van Os, Esquivel, Steinbusch, and Rutten [8] despite the significant challenges in understanding gene-environment interaction and schizophrenia, investigated neurodevelopmental and biologically basis relative to the early onset of the illness. Schmidt-Kastner., et al. found that during neurodevelopment, hypoxia is one of the numerous environmental dynamics connected to the possibility of schizophrenia. Schmidt-Kastner., *et al.* further articulated that this lack of oxygen (hypoxia) affects an extremely robust initiative to correct the deficiency. Therefore, Schmidt-Kastner., et al. suggested that there is an association between environmental factors, schizophrenia candidate genes, vascular expression, and the hypoxia regulation.

According to Schmidt-Kastner., *et al*. [8] environmental factors across early childhood and teenage years may cause further damage to the brain, thus increasing the risk of schizophrenia. However, if the appearance of neurodevelopmental or genetic defects is reduced, the likelihood of schizophrenia may decrease [8]. In fact, experts [4-7]. Presently confirm that schizophrenia in addition to other mental disorders, are induced by the interaction between psychological, biological, and social factors. The bio-psycho-social design of understanding of mental illness [7].

Signs and symptoms

Deshimaru [9] conveys the outcome of clinical case studies of 10 patients from ages 13 to 31. From Deshimaru's perspective, these patients were known to display signs and symptoms of psychiatric throughout their elementary years. Deshimaru communicated that the mean age of the 10 patients when the latent symptoms were identified was nine years and three months. The average ages when the psychiatric indications were recognized was 11 years and one month [9]. Evaluating the different kinds of symptoms detected during the participant's childhood, define the appearances of unusual childhood occurrences as emotionally unstable. Auditory and visual hallucinations, persecution complex, and behavioral problems [9].

Hans., *et al.* [10] analyzed the schizotypal symptoms in numerous Israeli teenagers (average age 16.79) who had not yet experienced the period in which the first episode of schizophrenia was most like to occur. The analysis consisted of 39 adolescent children who parents were diagnosed with schizophrenia, 39 children of parents with other mental illnesses, and 36 children of parents with no history of psychological disorders. To measure cognitive-disorganized, interpersonal, and perceptual schizotypal symptoms, Hans., *et al*. utilized "the Semi-Structured Kiddie Interview for Personality Syndromes" (p. 1198). The results demonstrated that a higher degree of interpersonal schizophrenia type symptoms in a group of children whose parent suffered from schizophrenia than in the no schizophrenia, children group [10]. Amongst the schizophrenia descendants group, interpersonal, minus the cognitive (perceptual) schizotypal indications. Correlated slight physical abnormalities, " fine motor dyscoordination, and deficits in executive functioning during adolescence" (p. 1200). Among children with no schizophrenia parents, cognitive (perceptual) schizotypal symptoms associated with executive deficiencies functioning [10]. Teenage schizotypal symptoms, relating to neurobehavioral features were assessed throughout middle childhood in a subgroup of the participants expected to display signs. The children, who showed all the symptoms such as, genetic threat factors for schizophrenia, neurobehavioral signals, and slight physical abnormalities. Had a significantly greater risk for interpersonal schizophrenia type symptoms, than children who had no or one of these risks influences [10].

Differences in childhood schizophrenia symptomologies in comparison to adults

According to Lushchekina., *et al.* [11] some key characteristics concerning childhood schizophrenia with the main differences as it appears in adolescents and adults are:

- Prior to psychosis, there is regularly a prodromal, or premorbid phase, which is more noticeable in children
- The premorbid developmental deficiencies consist of language impairments, movement (motor) problems, and social deficiencies.

Lushchekina., *et al.* [11] further expounded that unlike adults, hallucinations during childhood schizophrenia are auditory whereby the child would hear nonexistent external voices. Tactile and visual hallucinations are less. Delusions in childhood schizophrenia slightly differs as the bizarre misconceptions are commonly associated with childhood subject matters and are less multi-layered than those of adolescent and adults are [11].

Panagiotidis, Kaprinis, Iacovides, and Fountoulakis [12] examine brain impairment in childhood schizophrenia by using a standard bedside neurological examination. Panagiotidis., *et al.* discovered that children with a very early onset syndrome demonstrate an apparent decline in functioning as they move from one level to the next. According to Panagiotidis., *et al*. children and social dysfunctions, and symptoms description are comparable to adult's symptoms but with greater severity. In addition, the delusions and hallucinations symptoms in children with childhood schizophrenia influence the child's inability to differentiate real life from dreams and television [12]. Children also display strange speech and behavior, severe anxiety, intense moodiness. They withdraw and become isolated, experience difficulty connecting and maintaining friendships, and problems with personal grooming [12].

Treatment options

Childhood schizophrenia, when compared with the usual onset of schizophrenia in adolescence or adulthood suggests that there are more severe, and earlier disruption of the brain development [11]. According to Lushchekina., *et al*. [11] these findings recommend that a careful provision of emotional support, detailed and carefully planned treatment procedures for these children should be distinct from those for adult. The difference in caring for children with schizophrenia is that the condition tends to impede the treatment process [11]. Schizophrenia Research [7] communicated that some of the newer uncharacteristic antipsychotics such as Risperdal, Olanzapine, and Zyprexa are recommended when treating childhood schizophrenia. Whereas clozapine another group atypical alternative is utilized under circumstances when symptoms fail to respond to other medications. Schizophrenia Research [7] illuminated that although the medications are well tolerated for children the medicine can yield more severe side effects, such as glucose intolerance and weight gain [7].

How does childhood schizophrenia relates to health psychology?

Since Childhood Schizophrenia consist of both psychological and physical symptoms Lushchekina., *et al*. [11] express that it is important for health workers to become familiar with the disorder. As it could present itself as other medical problems such as conditions relating to or heightened by the pregnancy, childbirth, or by the puerperium (maternal causes or obstetric causes), and sleep disorders such as sleep apnea. Language delays could be contributed to mixed receptive-expressive language disorder. Whereby, the impairment may be acquired (i.e., due to head trauma or brain lesion) or developmental (i.e., no known neurological insult). An illness characterized by impairment of the auditory processing, resulting in deficiencies in the acknowledgment and clarification of sounds by the brain. Causes include delays in brain maturation and brain traumas or tumors (ICD10Data.com, 2014).

Other aspects of childhood schizophrenia that could be misdiagnosed are the late or usual crawling and walking, and other abnormal motor behaviors, for example, rocking or arm flapping. According to schizophrenia research [7] Late or unusual crawling and walking, and other abnormal motor behaviors, could be the cause of progressive muscular atrophy. An occasional, minor form of amyotrophic lateral sclerosis. It is characterized by a gradually progressive clinical course. Signs and symptoms consist of muscle weakness, atrophy, and fasciculation. Group of disorders marked by advanced deterioration of motor neurons in the spinal cord causing weakness and muscular atrophy, typically without evidence of injury to the corticospinal tracts (ICD10Data.com, 2014).

According to ICD10.com (2014) classified that disorganized thinking (speech), could be the outcome of other speech disturbance such as dyslalia, dysphasia, slurred speech, slurring, and speech disturbance. Disorders characterized by impairment of verbal communication skills, often resulting from brain damage. Impairment of language understanding, formulation, or use due to brain damage. Used only for partial impairments. Impairment of verbal communication skills, often resulting from brain damage (ICD10Data.com, 2014).

Conclusion

In conclusion, I recognize that there are so many loopholes in understanding childhood schizophrenia, for example, many similarities to other childhood disorders, and health/medical illness. Therefore, schizophrenia Research [7] warned that it is easy to misdiagnose children with childhood schizophrenia. Thus, extreme caution should be taken in giving such a diagnosis, it is also vital for all involved to keep competent and up to date. I considered that research should be geared towards preventive measures and possible reversal of the illness.

Bibliography

1. Asarnow Joan Rosenbaum. "Childhood-Onset Schizotypal Disorder: A Follow-Up Study and Comparison with Childhood-Onset Schizophrenia". *Journal of Child and Adolescent Psychopharmacology* 15.3 (2005): 395-402.

2. Freedman Alfred M. "Childhood schizophrenia: Round table, 1953: Maturation and its relation to the dynamics of childhood schizophrenia". *American Journal of Orthopsychiatry* 24.3 (1954): 487.

3. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5®). American Psychiatric Pub (2013).

4. Alaghband-Rad Javad., *et al*. "Childhood-onset schizophrenia: biological markers in relation to clinical characteristics". *American Journal of Psychiatry* 154.1 (1997): 64-68.

5. Boerglum AD., *et al*. "Dopa decarboxylase genotypes may influence age at onset of schizophrenia". *Molecular Psychiatry* 6.6 (2001): 712-717.

6. Häfner H., *et al*. "The ABC Schizophrenia Study: a preliminary overview of the results". *Social Psychiatry and Psychiatric Epidemiology* 33.8 (1998): 380-386.

7. Schizophrenia; research from B.D. peters and co-authors in the area of schizophrenia published. Psychology and Psychiatry Journal 139 (2011).

8. Schmidt-Kastner R., *et al*. "An environmental analysis of genes associated with schizophrenia: hypoxia and vascular factors as interacting elements in the neurodevelopmental model". *Molecular Psychiatry* 17.12 (2012): 1194-1205.

9. Deshimaru M. "Clinical Feature of childhood onset schizophrenia". *Japanese Journal of Child and Adolescent Psychiatry* 39 (1998): 158-165.

10. Hans Sydney L., *et al*. "Neurodevelopmental factors associated with schizotypal symptoms among adolescents at risk for schizophrenia". *Development and Psychopathology* 21.4 (2009): 1195-1210.

11. Lushchekina EA., *et al*. "Characteristics of the spectral power of EEG rhythms in children with early childhood autism and their association with the development of different symptoms of schizophrenia". *Neuroscience and Behavioral Physiology* 43.1 (2013): 40-45.

12. Panagiotidis P., *et al*. "Neurological soft signs in schizophrenia: correlations with age, sex, educational status and psychopathology". *Psychiatrike* 24.4 (2013): 272-287.

Volume 8 Issue 2 February 2019